

REMARKS

Claims 1-22 are pending in the above-referenced patent application. Claims 4, 5, 14 and 15 are withdrawn from consideration as being directed to nonelected species. In this Amendment, claims 1 and 11 are amended and new claims 23 and 24 are added. No new matter has been added. The applicant respectfully requests consideration of these claims on the merits.

1. Information Disclosure Statements

The Examiner declined to consider a number of references identified in the Information Disclosure Statements filed on January 16, 2007, because of the lack of a publication date. In the previous response, the applicant admitted that these references are prior art for the purpose of prosecuting this application and requested that the references be considered. The Examiner nevertheless declined to consider these references, still citing the lack of publication date.

The applicant notes that MPEP § 2129 provides that an applicant may admit that work of another is prior art by making a statement to that effect during prosecution. That is what the applicant has done with respect to the un-initialed references in question here. The applicant therefore respectfully submits that the Examiner should consider these references on the merits, even if she does not mark them as such on the PTO/SB/08B forms submitted with the Information Disclosure Statement.

2. Rejections under Section 101

Claims 11, 16-20 and 22 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. The applicant respectfully disagrees.

Claim 11 is directed to a computer program product on a computer-readable medium for generating a library design for a set of experiments. The claim recites that the product comprises instructions operable to cause a programmable processor to perform a set of operations, including defining a library array representing an arrangement of experiments and a plurality of sources representing materials or conditions that can be used in the experiments, receiving user input defining a plurality of maps that represent the application of sources to elements of the library array, and generating a library design representing the library array, the sources, the maps

and a mapping sequence. The claim has been amended to recite that the product also includes instructions operable to cause a programmable processor to store the library design in a computer memory.

Apparently invoking the Office's guidelines for examining computer-related subject matter embodied in MPEP § 2106.01, the Office Action characterizes the claimed computer program product as "nonfunctional descriptive material" and as mere "computer listings". Quoting directly from those guidelines (MPEP § 2106.01(I) at p. 2100-18), the Office Action concludes that "Such claimed computer programs do not define any structural and functional interrelationships between the computer program and the other claimed elements of a computer that permit the computer program's functionality to be realized".

However, rather than supporting the conclusion that the claimed computer program product is merely nonfunctional descriptive material, the guidelines actually compel the opposite conclusion. The guidelines state that "Descriptive material can be characterized as either 'functional descriptive material' or 'nonfunctional descriptive material.'" MPEP § 2106.01 at p. 2100-17. The guidelines explain that "'functional descriptive material' consists of data structures and computer programs which impart functionality when employed as a computer component", while "'[n]onfunctional descriptive material' includes but is not limited to music, literary works, and a compilation or mere arrangement of data." *See id.* Here, as noted above, the claim is directed to a computer program product that expressly includes "instructions operable to cause a programmable processor to" perform a set of operations – that is, a program that "impart[s] functionality when employed as a computer component". Thus, the applicant respectfully submits that the data structures and computer programs recited in claim 11 should be characterized as functional, rather than nonfunctional, material.

As also noted above, claim 11 expressly recites that the claimed computer program product is embodied "on a computer-readable medium". The guidelines state that "When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized." MPEP § 2106.01 at p. 2100-17. Indeed, in the sentence immediately following the passage quoted in the Office Action, the guidelines expressly state that "a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional

interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, *and is thus statutory.*" MPEP § 2106.01(I) at p. 2100-18 (emphasis added). This is precisely the case with claim 11.

The applicant therefore respectfully submits that claim 11 as originally drafted does provide a useful, concrete, and tangible result, and is therefore directed to statutory subject matter under Section 101. Nevertheless, in order to facilitate prosecution the applicant has amended the claim to recite that the product includes instructions operable to cause the processor to store the library design in a computer memory, further emphasizing the functional nature of the computer program product recited in the claim. Method claim 1 has been amended to recite the corresponding step of storing the library design. The applicant therefore requests that the rejection of claim 11 under Section 101, and the corresponding rejection of dependent claims 16-20 and 22, be withdrawn.

3. Rejections under Section 102

Claims 1-3, 6-13, and 16-22 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by WO 00/23921 ("Lacy"). The applicant respectfully disagrees.

Claim 1 is directed to a computer-implemented method for generating a library design for a set of experiments. In the claimed method, a plurality of maps are defined, based on user input, to represent the application of sources, which represent materials or conditions to be used in the experiments, to elements of a library array, which elements represent locations at which the experiments will be performed. Each of the maps identifies one or more library elements and defines an amount of a corresponding source to be applied to the identified library elements. The maps are ordered to define a mapping sequence.

The method generates a library design that represents the library array, the sources, the maps and the mapping sequence. For each of a plurality of library elements, the library design specifies amounts of one or more sources to be applied to the corresponding library element. The amounts are defined at least in part by the order of maps in the mapping sequence. Independent computer program product claim 11 includes analogous limitations.

The Office Action points to Lacy's description of using mappings to calculate a composition of one or more materials assigned to cells of a destination, and in particular to Lacy's discussion of mappings that define a distribution pattern including a minimum and a

maximum amount of a component to be assigned to any cell of a destination arrangement and a gradient to be applied between those amounts across the cells. From this, the Office Action concludes that “Lacy teaches that the order (distribution) of maps defines amounts of sources to be applied to the library.”

The present claims recite that the maps are ordered to define a mapping sequence, and that the amounts specified by the library design are defined at least in part by the order of maps in the mapping sequence. Lacy does describe mappings that define distribution patterns for assigning components to cells in a destination arrangement or library, in which a mapping defines the amount of a component to be assigned to a given cell based, for example, on a gradient or set of equations specified by the mapping. But Lacy does not disclose that such mappings can be ordered to define a sequence such that the amounts are defined by the *order* of multiple mappings, as opposed to the distribution patterns defined *within* individual mappings. That is, Lacy discloses the calculation of amounts based on the contents of mappings, while the present claims specify that amounts are defined at least in part based on ordered relationships between mappings.

Because Lacy does not disclose at least this feature of the present claims, it does not anticipate the claims under Section 102(b). The applicant therefore respectfully requests that the rejections under Section 102(b) be withdrawn.

4. New Claims 23-24

New claims 23 and 24 are dependent claims based on claims 1 and 11, respectively, and add a limitation directed to the use of the library design to perform the set of experiments. The applicant submits that these claims are allowable over Lacy for at least the reasons discussed above in the context of claim 1.

5. Conclusion

The applicant submits that each of the pending claims 1-24 are now in condition for allowance. Please apply any charges or credits in connection with this application, throughout the pendency thereof, to Deposit Account No. 50-0496.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Timothy A. Porter', with a stylized flourish at the end.

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